

State of Louisiana
Department of Transportation and Development (DOTD)
Materials and Testing Section Qualification Procedure
for
Qualified Products List 66

PLASTIC CULVERT PIPE AND JOINT SYSTEMS

MATERIAL SPECIFICATION REFERENCE:

DOTD Standard Specifications, Subsection 1006.07 (copy attached)

This reference relates to the use of plastic culvert pipe as culverts or storm drains. This list includes the type of pipe qualified, the name of the pipe the pipe manufacturer, the diameters of the pipe approved, the joint system utilized and the approved joint types tested in accordance with Subsection 1006.05.

PRELIMINARY REQUIREMENTS:

Qualified Product Evaluation Form

Submit a standard "Qualified Product Evaluation Form" to the DOTD Materials and Testing Section Coordinator listed below, along with a letter requesting evaluation for the Qualified Products List (Form Attached).

Product Literature

Include with the submittal product literature regarding specification conformance, manufacturing process, raw materials, available diameters, joint system and materials, installation instructions, etc. The manufacturer shall also submit a diagram of each diameter of pipe to be qualified which shows all dimensions of diameter, wall thickness, rib height and thickness (if applicable), rib or corrugation spacing, corrugation height and width (if applicable), outside diameter, etc. The manufacturer shall submit dimensional tolerances for all dimensions. The DOTD Hydraulic Section will determine if the pipe will meet AASHTO design requirements using the minimum material cell classification properties and all profile data provided by the manufacturer. The manufacturer shall also submit a detailed description of the manufacturing facility's quality control plan.

Sample (to be furnished at no cost to DOTD)

The manufacturer shall submit a .7 meter (two foot) section of 450 mm (18 inch) diameter pipe to the coordinator for visual and laboratory examination. The manufacturer shall submit the proposed joint material for testing. The manufacturer shall also be aware that physical qualification tests shall be performed on every diameter of pipe to be qualified. The manufacturer will be required to provide pipe and material for the hydrostatic joint testing and conduct the hydrostatic test in the presence of DOTD personnel. All qualification tests done by an independent laboratory and all material used in testing shall be provided at no cost to DOTD.

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TEST REQUIREMENTS:

Laboratory Testing

Materials submitted for evaluation may be tested for resin cell classification and filler content. An infrared curve of the resin shall be established for use in project acceptance. Other chemical and physical testing may be performed at the option of DOTD.

Physical Testing of Manufactured Pipe

All physical testing required by the specification shall be performed at the manufacturers facility or at an independent laboratory. All testing shall be coordinated with the DOTD Construction Fabrication Section who will witness all testing. The testing for specification conformance shall be performed on all diameters of pipe to be qualified. Hydrostatic joint testing shall be performed on at least one diameter of pipe to be qualified. The DOTD Construction Fabrication Section will determine the diameter of pipe to be hydrostatically tested.

Total Evaluation Time

Two months minimum.

GENERAL:

Upon completion of the evaluation, the submitter will be notified in writing concerning the results of the evaluation and whether the product will or will not be added to the Qualified Products List. The Department reserves the right to reevaluate any product at any time. The manufacturer shall notify the Department of any material process or dimensional changes. These changes may necessitate requalification. The manufacturer is hereby notified that the pipe shall be identified by lot number which reflects production date, shift produced, etc.

PROJECT SAMPLE REQUIREMENTS:

A certificate of analysis showing test properties and lot numbers shall accompany each delivery. The DOTD Construction Fabrication Section shall dimensionally inspect each lot of pipe at the project site, or at the manufacturers or suppliers storage facility. Additionally, coupons will be cut from each diameter for laboratory analysis.

DISQUALIFICATION:

Any deviation in performance from the original sample may result in removal of the product from the qualified list.

REQUALIFICATION:

Any product which has been disqualified and removed from the Qualified Products List will be considered for reevaluation only after submission of a formal request along with acceptable evidence that the problems causing the disqualification have been solved.

DOTD MATERIALS AND TESTING SECTION COORDINATOR:

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Approved 8-01-01

N. DOUG HOOD, JR., P. E.
DOTD MATERIALS ENGINEER ADMINISTRATOR